BULK SPECIFIC GRAVITY AND MOISTURE DETERMINATION
(Rock, Gravel, Shale, Soil Clods, etc.)

Location _____ Date _____

Watershed _____ Subwatershed _____ Site _____

Contract No. _____ Contractor _____

Tested by _____ Computed by _____ Checked by _____

Moisture Determination

1. Weight of moist sample plus container _____ g
2. Weight of dry sample plus container _____ g
3. Weight of container _____ g
4. Weight of dry sample= ②−③ _____ g
5. Moisture content=[(①−②)/④] 100 _____ %

Bulk specific gravity—method A—hard, sound rock or gravel

6. Weight of container (basket) or cord in air _____ g
7. Weight of container (basket) or cord in water _____ g
8. Weight of sample, natural moisture, plus baske in air _____ g
9. Weight of sample, natural moisture, in air= ⑧−⑥ _____ g
10. Weight of sample, saturated, plus basket in air _____ g
11. Weight of sample, saturated, in air= ⑩−⑥ _____ g
12. Weight of sample, saturated, plus basket in water _____ g
13. Weight of sample, saturated, in water= ⑫−⑦ _____ g
14. Volume of sample by weight= ⑪ − ⑬ or measured volume _____ cm^3
15. Bulk specific gravity, natural moisture (Gmm)=⑨/⑭ _____ g/cm^3
16. Bulk specific gravity, ovendry (Gm)=④/⑭ _____ g/cm^3
17. Bulk density, natural moisture (γm)= ⑯ x 62.4 _____ lb/ft^3
18. Bulk density, ovendry (γd)= ⑮ x 62.4 _____ lb/ft^3

Bulk specific gravity—method B—materials that disintegrate in water

19. Weight of sample in air _____ g
20. Weight of sample plus wax in air _____ g
21. Weight of wax in air= ⑳ − ⑲ _____ g
22. Weight of sample plus wax in water _____ g
23. Volume of sample plus wax by weight= ⑳ − ㉒ or measured volume _____ cm^3
24. Volume of wax= ㉑ / specific gravity of wax _____ cm^3
25. Volume of sample= ㉓ − ㉔ _____ cm^3
26. Bulk specific gravity, natural moisture (Gmm)= ⑲ / ㉕ _____ g/cm^3
27. Bulk specific gravity, ovendry (Gm)= ㉖ / [(1/⑤)100] _____ g/cm^3
28. Bulk density, natural moisture (γm)= ㉖ x 62.4 _____ lb/ft^3
29. Bulk density, ovendry (γd)= ㉗ x 62.4 _____ lb/ft^3